



Recovery Report to Congress

Fiscal Years 1997-98 and 1999-2000



On the Cover

A sampling of recovery plans finalized during the period between October 1, 1997 and September 30, 2000. Some of these plans were for individual species (e.g., the winged mapleleaf mussel), while others covered multiple species and large ecosystems (e.g., the South Florida Everglades).

Summary Report to Congress on the Recovery Program for Threatened and Endangered Species

1998 and 2000

The primary purpose of the Endangered Species Act of 1973 [16 U.S.C. 1531 *et seq.*] (Act) is the conservation of endangered and threatened species and the ecosystems upon which they depend. The ultimate goal of such conservation efforts is the recovery of endangered and threatened species, so that they no longer need the protective measures afforded by the Act.

The Act requires the Secretaries of the Department of the Interior (DOI) and the Department of Commerce (DOC) to develop and implement plans for the conservation and survival of endangered and threatened species ("recovery plans"). Recovery plans are required, unless such plans will not promote the conservation of the species. The Act also requires the Secretaries report to Congress in two-year intervals on the status of efforts to develop and implement recovery plans, and the status of all species for which recovery plans have been developed.

The U.S. Fish and Wildlife Service (Service), under the DOI, and the National Marine Fisheries Service (NMFS), under the DOC, have been delegated the responsibility of administering the Act. In general, the Service has responsibility for freshwater and terrestrial species (including all bird species), while NMFS has responsibility for most marine species and anadromous fish. The Service and NMFS share the responsibility for ten listed species.

This report satisfies the Act's reporting requirement for 1998 (October 1, 1996 to September 30, 1998) and 2000 (October 1, 1998 to September 30, 2000) for species under the Service's jurisdiction, including species managed jointly with NMFS. Included in this report is summary information on listed species' status and recovery planning efforts.

This report and copies of recovery plans are available electronically at the Service's internet site at: <http://endangered.fws.gov/recovery>.

Copies of this report are also available from:

U.S. Fish and Wildlife Service
Endangered Species Program
4401 N. Fairfax Drive, Room 420
Arlington, VA 22203

Copies of recovery plans are also available from:

Fish and Wildlife Reference Service
5430 Grosvenor Lane, Suite 110
Bethesda, Maryland 20814-2158
Phone: 1-800-582-3421 or 301-492-6403
(The fee for copies is based on the number of pages of the plan.)

The American peregrine falcon was declared recovered and delisted in August, 1999. Illustration by Robert Savannah/USFWS



Recovery of Endangered and Threatened Species

Recovery is the improvement in the status of listed species to the point at which listing is no longer appropriate under the criteria set out in section 4(a)(1) of the Act. The recovery process involves arresting or reversing the species' decline by addressing the threats to its survival. The goal of this process is to restore listed species to a point where they are secure, self-sustaining and functioning components of their ecosystems and, thus, to allow delisting.

The Service faces a challenging task in leading the efforts to recover endangered and threatened species. Because factors responsible for a species' endangered or threatened status are often complex and may have been at work for a long period of time, recovery generally requires coordinated long-term actions by numerous stakeholders. The Service's Recovery Program works with Federal, State, local, and Tribal governments, non-governmental organizations, and private landowners. Together, we take necessary measures to prevent extinction of species, prepare recovery plans that identify recovery actions and recovery goals, and implement these actions. While the Service leads the recovery of endangered and threatened species, the status of species is often largely a reflection of the willingness and the ability of our partners to participate in the effort.

Simply gaining the Act's protection for a species may not reduce all the threats to its survival (*e.g.*, threats such as invasive species or habitat succession may continue), and consequently, many species often continue to decline following listing. Years of research, restoration, protection, and active management are generally needed to comprehensively address threats to a species and achieve the species' successful recovery. The Service uses the best available scientific information in carrying out these activities. As we increase our knowledge of a species and its requirements, and we develop recovery plans and initiate recovery actions, we see species' status stabilize and begin to show improvement. Our

ultimate success in recovering species is tied directly to the resources provided to plan, fund, and coordinate recovery actions.

A recovery outline - the first step in recovery planning - establishes initial direction for conservation efforts and guides the development of a recovery plan to identify actions necessary to achieve recovery. After a recovery outline, draft and final recovery plans follow in a timely manner. Recovery plans organize, prioritize, and guide the recovery process, and establish objective criteria by which to measure progress toward recovery. While recovery planning details specific objectives and actions needed, recovery implementation

involves taking on-the-ground actions. To stabilize and ultimately delist endangered and threatened species, the Service must engage and encourage participation of multiple stakeholders throughout the recovery planning and implementation processes. Additional information on the recovery program is available at the Service's web site at: <http://endangered.fws.gov/recovery/>.

The Service has actively sought to improve the overall national implementation of the Act and has developed a suite of national policies affecting all aspects of implementation of the Act. This information is available electronically at: <http://endangered.fws.gov/policies/>.

A Fish and Wildlife Service biologist engages in recovery efforts for the Eastern prairie fringed orchid. A recovery plan for the orchid was finalized in 1999.
USFWS photo



Recovery Planning 1998 and 2000 Summary

Recovery Plans

October 1, 1996, through September 30, 1998, the Service issued 75 final and 2 revised recovery plans covering 256 species.

October 1, 1998, through September 30, 2000, the Service issued 16 final and 4 revised recovery plans covering 131 species (including 6 plans for 6 species issued in conjunction with the NMFS).

Despite the many species added to the lists over the last few years, the Service has maintained a marked improvement in the proportion of species with final recovery plans (in 1994 only 54% of the 893 species then listed had final plans).

Recovery Objectives

Recovery objectives in a recovery plan identify the recovery needs of the species. In this report, we include a percent "Recovery Achieved" to show what extent the recovery objectives have been achieved. As such, this measure indicates the species' long term progress toward the recovery goal of secure sustainability that would allow removing the protections of the Act. This number does not necessarily correspond with the percentage of recovery tasks achieved, as individual tasks may have greater or lesser importance to achieving recovery.

Although we have made significant progress in recovery planning and preventing species extinctions, a substantial amount of recovery work remains to be done. As summarized in Table 2, as of September 30, 2000, most listed species had 25 % or less of their recovery objectives achieved.

Table 1.

Summary of Recovery Plans for U.S. Species Under Jurisdiction of the Service

<i>Percent of listed U.S. species under jurisdiction of the Service (or jointly with NMFS) that have—</i>	<i>As of September 30, 1998 (1,137 species)</i>	<i>As of September 30, 2000 (1,216 species)</i>
Final, approved recovery plans	79%	78%
Final plans under revision	17%	13%
Draft plans	7%	6%
Plans in first stages of development	12%	14%
Exemptions from recovery plans	2%	1%

Table 2. Summary of Recovery Achieved

<i>Range of Recovery Objectives Achieved</i>	<i>Percent of Species in Range</i>	
	<i>As of September 30, 1998 (1,137 species)</i>	<i>As of September 30, 2000 (1,216 species)</i>
0 to 25%	78%	78%
26 to 50%	15%	15%
51 to 75%	5%	5%
76 to 100%	2%	2%

Status of Listed Species 1998 and 2000 Summary

As a result of the Service's numerous partnerships, hundreds of species have been saved from extinction, including the California condor, black-footed ferret, and our Nation's symbol - the bald eagle. As of September 30, 2000, 98 percent of listed species are known to survive and 39 percent are stabilized or moving towards recovery. The Service has worked hard and successfully to prevent extinctions and plan for species recovery. However, continued efforts are needed to recover listed species so that they no longer need the protections of the Endangered Species Act.

The American peregrine falcon and the Aleutian Canada goose, among others, have been officially delisted due to their successful recovery. The Service anticipates announcing several additional delisting or reclassification proposals and final actions due to recovery in the near future.

Endangerment continues to threaten species of all taxonomic categories (Table 3), in rough proportion to their occurrence. Reptiles and amphibians comprised the smallest proportions of listed species, possibly due to fewer species within these taxonomic groups. Similarly, the large proportion of listed invertebrates may reflect the larger numbers of species within this animal taxon group.

Annually, our Field and Regional staff report on the status of each listed species as a measure of our progress in achieving our goals under the Government

Table 3. Listed Species 1998 and 2000

<i>U.S. species listed as threatened or endangered:</i>	<i>As of September 30, 1998</i>	<i>As of September 30, 2000</i>
Total Number	1,155	1,233
Under jurisdiction of the Fish and Wildlife Service (or jointly with NMFS)	1,137	1,216
Plants	61%	60%
Animals	39%	40%
Mammals	5%	5%
Birds	8%	8%
Reptiles	3%	3%
Amphibians	1%	1%
Fish	9%	9%
Invertebrates	13%	14%

Marking Successes

An independent scientific analysis concluded that, based on the risk of extinction alone, 192 listed species might have been expected to have gone extinct between 1973 and 1998. The study concluded that the relatively few observed extinctions represents a significant benchmark of success of the Act.

(M. W. Schwartz. 1999. Choosing the appropriate scale of reserves for conservation. Annual Reviews Ecology and Systematics 30:83-108)

Performance and Results Act of 1993 (31 U.S.C. 1115). This measure provides a current snapshot of the status of a species since the last reporting cycle, and is based on both population numbers and threats. Although the Act and other processes require us to assess the status of all listed species periodically, our practice is to monitor the status of listed species on a continual basis. We do this as part of recovery planning and implementing efforts, our consultation process with other Federal agencies under section 7 of the Act, our permitting program under section 10 of the Act, our petition process under section 4 of the Act, and other activities related to listed species. The species status reported herein is the result of these efforts.

For several listed species, there are multiple recovery “entities” established to address specific recovery planning needs. For example, there are three recovery entities of piping plover (Atlantic Coast, Great Lakes, and Northern Great Plains). In this report, we summarize the listing status, population status, recovery plan development stage, and extent of recovery objectives achieved for 1,219 recovery entities under the jurisdiction of the Fish and Wildlife Service (see Appendix 1). For purposes of the statistics that follow, all recovery “entities” are referred to as species.



A recovery plan for the Rio Grande silvery minnow was finalized in 1999. USFWS photo

Table 4. Summary of Species Status

Number of U.S. species under Service jurisdiction (or jointly with NMFS) with status—	As of September 30, 1998		As of September 30, 2000		Notes
	No.	% of total	No.	% of total	
Stable	313	27%	369	30%	Although 78 species were added to the list between 1998 and 2000, the proportions in species status appear to have remained constant or improved slightly.
Improving	92	8%	108	9%	
Uncertain	334	30%	291	24%	
Declining	376	33%	417	34%	
Captive (only found in captivity/cultivation)	5	<1%	6	<1%	The plant Oha wai (Clermontia peleana) status was "Uncertain" in 1998 and changed to "Captive" in 2000.
Presumed extinct	21	2%	28 *	2%	* Subsequent to September 30, 2000, two Hawaiian plants Stenogyne kanehoana and Phyllostegia waimeae were rediscovered living in the wild.
Totals	1,141		1,219		

Changes in Species Status Over Time

Recovery activities must reverse declines that often have occurred over the course of decades or centuries. While we strive to recover species as quickly as possible, addressing these long-term threats, as is reflected in changes in the species status, typically requires substantial time and resources.

As a result of normal environmental variation, the status of species will at times fluctuate independent of our recovery efforts. Further, even when a species is on the road to recovery there may be periods of increased or decreased populations interspersed with periods of stable populations.

During the first few years after listing, most species populations have an uncertain or declining status (see Table 5). Over time, as more information about listed species becomes available from status surveys or research and species benefit from the management or protection efforts of recovery programs, increasing numbers of listed species are reported as stable or improving. After approximately 10 years following listing, minimal differences are observed in the population status categories among subsequent five-year intervals (*i.e.*, 16-20, 21-25, and 26+ years).



A recovery plan for the San Joaquin kit fox was finalized in 1998. Photo by Corel Corp.

Increasing Workload & Continuing Progress

The percentage of stable or increasing species has remained relatively constant since 1990 (see Figure 1) even though the number of U.S. listed species more than doubled from 558 (in 1990) to 1,233 (in 2000). In general, academic scientists have found that the longer a species has been listed and the longer that it has had a recovery plan the better its status.

Schultz and Gerber. 2002. Are Recovery Plans Improving With Practice? Ecological Applications 12: 641-647.

Figure 1. Overall population status of all listed species within each biennial reporting period 1990-2000

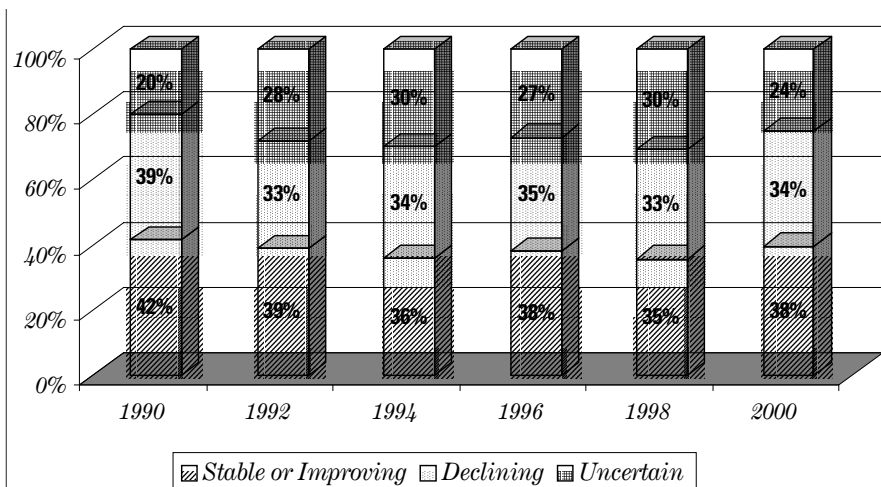


Table 5. Changes in Status Over Time

<i>Percent of the U.S. species under jurisdiction of the Service (or jointly with NMFS) with status as —</i>	<i>Species listed five years or less</i>		<i>Species listed 6-10 years</i>		<i>Species listed 11 years or more</i>	
	<i>As of Sept. 30, 1998</i>	<i>As of Sept. 30, 2000</i>	<i>As of Sept. 30, 1998</i>	<i>As of Sept. 30, 2000</i>	<i>As of Sept. 30, 1998</i>	<i>As of Sept. 30, 2000</i>
Stable	15%	17%	32%	27%	36%	40%
Improving	2%	3%	6%	7%	15%	14%
Declining	41%	48%	23%	32%	32%	27%
Uncertain	41%	31%	39%	30%	13%	15%
Captivity	<1%	<1%	0%	<1%	<1%	<1%
Presumed Extinct	<1%	<1%	<1%	3%	4%	3%

Delisting Actions

Successful implementation of recovery actions over time leads to improvement in a species status and eventual downlisting (reclassification from endangered to threatened) and delisting.

Delisting results in the removal of regulatory restrictions for species whose status has improved. To delist a species, the Service must determine that the species is not threatened based on a number of factors, such as population size, recruitment, stability of habitat quality and quantity, and control or elimination of the threats that caused the need to list the species.

When a species has been recovered and delisted, the Act requires the Service, in cooperation with the States, to monitor the species for a minimum of five years in order to assess each species' ability to sustain itself without the Act's protective measures.

Table 6. Summary of Delisting Actions

<i>Number of U.S. species—</i>	<i>As of Sept. 30, 1998</i>	<i>As of Sept. 30, 2000</i>
Delisted (Total)	27	31
Delisted because they recovered	11	12
Delisted because they are extinct **	7	7
Delisted because of new information, taxonomic revisions, or other administrative reasons	9	12

** Several of these species, such as the blue pike and Santa Barbara song sparrow, were likely extinct prior to listing.